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All amounts are calculated in domestic currency.

Purchase Order Receipt Listing

Friday, January 27, 2017 2:33:53 PM

All Vendors PO ID PO35031 All Receipt Dates All Line Item Types All Item ID/GL/WOs All Rec. Employees All Currencies Grouped by Vendor ID

Order ID/ Nbr/ Curr Type Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vendor Name		VC-COP001 Thysse	Thyssenkrupp Materials CA Ltd							
PO35031 1)	- M174R0.750		1/27/2017	1/27/2017	14,2000	\$9.9%	00000	c	\$604.46
No		17-4 round bar .750	÷.	14.2000	OUIR01		\$94.46	00000		074.40
		M136697					-			
2	1	M303R0.500	f	1/27/2017	1/27/2017	24.0000	\$1.98	00000	C	\$47.53
No		303 Round Bar	f	24.0000	QUIR01		\$47.53	0.0000	0	00.749
		M136697								
3		M303R0.750	J	7102/2017	7100/2011	12 0000	\$4.46	00000		
No	1	303 Round Bar 0.750 f	J 0	12 0000	Offired	75.0000	653.47	0.0000	0 0	\$53.47
		M136697			·		1.000	0.0000	0	
4		M303R1.000	f	1/27/2017	1/27/2017	12.0000	\$6.76	00000	0	881 18
No		303 Round Bar 1.00	J	12.0000	QUIR01	*	\$81.18	0.0000	0	
,		M136697				*				
5		M6061T6B0.375X01. f 000	1. f	1/27/2017	1/27/2017	12.0000	\$3.41	0.0000	0 *	\$40.96
No		6061T6 BAR .375 x 1 00	£.	12.0000	QUIR01)	\$40.96	0.0000	0	
		M136697								
9 1		M6061T6B0.500X06. f 000	6. f	1/27/2017	1/27/2017	12.0000	\$8.00	0.0000	0	\$95.99
No		6061-T6 Bar .500 x 6.00	f	12.0000	QUIR01		\$95.99	0.0000	0	
		M136697								
14		M6061T6B0.500X12. f 000	2. f	1/27/2017	1/27/2017	12.0000	\$15.81	0.0000	0	\$189.74
No		6061-T6 Bar .500 x 12.00	f	12.0000	QUIR01		\$189.74	0.0000	0	
		M136697								

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BILL OF LADING No: PEC 27450 Ship Date 23Jan17 at 10:59 From PFW Ship From: THYSSENKRUPP MATERIALS NA Probill 2821 LANGSTAFF ROAD Via VIM DELIVERY CONCORD CONCORD, ONTARIO L4K 5C6 FOB Tel: 905 669 9444 Fax: 905-738-9033 Frt PREPAID Route 0- 0 Manifest Vhcle Trailer Slp STAN IVERS (905-532-1350) Ship To: (1) Sold To: (20115) DART AEROSPACE DART AEROSPACE BILL OF LADING 6) Our Order PEC- 8887- 6 Your PO # 35031 ALUMINUM FLAT BAR 6061-T6511 .50" X 6.00" X 144.0000" Tag No Heat Number Quantity OL Wt LBS 201621892 610524 12 FT 7) Our Order PEC 8887- 7 Your PO # 35031 ALUMINUM FLT BAR ECONOPLT 6061-T6511 .500" X 12.00" X 144.0000" Tag No Heat Number Quantity Z00108144/ 12 FT 610525 -------8) Our Order PEC- 8887- 8 Your PO # 35031 ALUMINUM SQUARE BAR 6061-T6511 .750" X 144.0000" Heat Number Tag No Quantity 201610858 / 610527 12 FT 9) Our Order PEC- 8887- 9 Your PO # 35031 ALUMINUM FLAT BAR 6061-T6511 .125" x .750" X 240.0000" Heat Number Tag No 429847-4 610528 PCS Wt LBS Quantity 100 FT 10) Our Order PEC- 8887- 10 Your PO # 35031 ALUMINUM FLAT BAR 6061-T6511 1.250" x 2.00" X 144.0000" Heat Number Tag No 201617706 610529 Quantity Wt LBS 12 FT 36 11) Our Order PEC- 8887- 12 Your PO # 35031 Part # ** FROM PLATE **** Rel # ALUMINUM PLATE 7075-T651 DOMESTIC 2.00" THICK X 7.0000" X 13.3750" William

Page: 2Continued

ALUMINUM - LAITON - CUIVRE - PLASTIQUE - ACIER INOX

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT.
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

DATE

OF

BILL Ship From: THYSSENKRUPP MATERIALS NA

2821 LANGSTAFF ROAD

CONCORD, ONTARIO L4K 5C6

Tel: 905 669 9444 Fax: 905-738-9033

Ship To: (DART AEROSPACE 1270 ABERDEEN ST

HAWKESBURY, ON K6A 1K7

Tel: 613-632-9577 Fax: 613-632-1053

LADING No: PEC Ship Date 23Jan17 at 10:59 From PFW

Probill Via VIM DELIVERY

FOB CONCORD

Frt PREPAID 0- 0 Manifest Route

Trailer Vhcle

STAN IVERS (905-532-1350) Slp

Sold To: (20115)

DART AEROSPACE

1270 ABERDEEN ST

HAWKESBURY, ON K6A 1K7

______ BILL OF LADING 1) Our Order PEC- 8887- 1 Your PO # 35031 STAINLESS STEEL ROUND BAR 17-4 STAINLESS .750" DIA X 170.0000" Wt LBS Ouantity Heat Number Tag No 14 ' 2.0000 " 610517 800644 2) Our Order PEC-8887- 2 Your PO # 35031 STAINLESS STEEL ROUND BAR 303 STAINLESS .50" DIA X 144.0000" LBS Quantity Heat Number Tag No 15 24 FT 428558 610518 3) Our Order PEC- 8887- 3 Your PO # 35031 STAINLESS STEEL ROUND BAR 303 STAINLESS .750" DIA X 144.0000" Wt LBS Tag No Quantity Heat Number 18 12 FT 100D 610519 4) Our Order PEC- 8887- 4 Your PO # 35031 STAINLESS STEEL ROUND BAR 303 STAINLESS 1.00" DIA X 144.0000" LBS Quantity Heat Number Tag No 1 33 428705 12 FT 610520 5) Our Order PEC- 8887- 5 Your PO # 35031 ALUMINUM FLAT BAR 6061-T6511 .375" x 1.00" X 144.0000" Ouantity Wt LBS Heat Number Tag No 12 FT 6 610522 (201621178)

Page: 1Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT. MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

BILL OF LADING No: PEC 27450 Ship From: Ship Date 23Jan17 at 10:59 From PFW THYSSENKRUPP MATERIALS NA Probill 2821 LANGSTAFF ROAD Via VIM DELIVERY CONCORD, ONTARIO L4K 5C6 CONCORD FOB Tel: 905 669 9444 Fax: 905-738-9033 PREPAID Frt Route 0- 0 Manifest Vhcle Trailer Slp STAN IVERS (905-532-1350) Ship To: Sold To: (20115) 1) DART AEROSPACE DART AEROSPACE BILL OF LADING GRAIN DIRECTION ALONG THE 13.375 INCH DIM **** Heat Number PCS Tag No Quantity 9346164 610586 3.90 SFT PCS Tags TOTAL: 11 21 Heat Number *** Chemical Analysis *** 100D 201610858 201617706 201621178 428558 428705 429847-4 800644 9346164

Wt LBS

118

LBS

393

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR TO SHIPPING.

ATTN: CHANTAL/LINDA

Z00108144

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **

** REFERENCED ON IT **

TOTAL 1 SKID, 2 BDLS GW. 443 LBS

CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA CONCORD, ONT. *** 9:00 AM TO 4:00 PM ***

**** TEL. 800-926-2600 ****

********************** WE STOCK STAINLESS STEEL

PLEASE LET US QUOTE YOUR NEXT REQUIREMENT

Page: 3Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE RAPPORTÉES IMMÉDIATEMENT. ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT. MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

BILL OF LADING Ship D

Ship From: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ONTARIO L4K 5C6

Tel: 905 669 9444 Fax: 905-738-9033

Ship To: (1) DART AEROSPACE I N G No: PEC 27450 Ship Date 23Jan17 at 10:59 From PFW Probill

Via VIM DELIVERY FOB CONCORD

Frt PREPAID

Route 0- 0 Manifest
Vhcle Trailer

Slp STAN IVERS (905-532-1350)

Sold To: (20115)

DART AEROSPACE

***PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE

ADDED TO EVERY ORDER. ***

UNE SURCHARGE D'ENERGIE DE \$25.00 SERA AJOUTEE A CHAQUE COMMANDE.

***POUR VOS BESOINS D'ACIER INOXYDABLE,

CONTACTEZ-NOUS. NOUS L'AVONS! TEL. 800-926-2600

Page: 4 Last

ALUMINIUM - LAITON - CUIVRE - PLASTIQUE - ACIER INOX

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE RAPPORTÉES IMMÉDIATEMENT. ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

DATE

DART AEROSPACE

STAINLESS STEEL ROUND BAR 17-4 STAINLESS .750" DIA X 170.0000" PART NO.

PO/Rel 3503

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs. **Certificate of Mill Test Results**

BL PEC-027450-001

23Jan17 Pg 1/1

DETEC 02/45/001



INSPECTION CERTIFICATE

Certificase Type : EN 10204 / 3.1

Cur Sales Order No. 100308 Invoice No. 1516110470 Certificate No. 1516-0006043

Customer Order No. PEC-269804 Invoice Date 09.01.2016 Date 09.01.2016

Customer

Thyssankrupp Materials No 2821 Langstaff Rd. Concord, Ontario L4K 5C8 Ontario L4K 5C6 Canada

Trado Mark

ASSL

Inspector's Mark

ASS1

Steel Grade	17-4ph	Shape	Round	Size	0,7500 inch
Heat No.	800644	Tolerance	A-484 (CF)	Length of Bars	144-168 inch
Net Weight	974.61 LBS	Number of Bars	46	Melting Process	EF / AOD / MEMS
Bundle No's	AH-4858				
Requirements	AMS 5643T:2013	ASTM A 564:2013	NACE MR 0175 / IS	O 15156:2009	

Chemical Analysis %

	С	Si	Mn	P	5	Cr	Мо	NE	Cu	Nb			 L	
Min.	T					15.000		3.000	3.000	0.150			<u></u>	
Max.	0.070	1.000	1.000	0.040	0.030	17.500	0.500	5.000	5.000	0.450				
Melt	0.042	0.300	0.790	0.038	0.025	15.670	0.312	4.100	3.190	0.242				

Mechanical Properties

	YS/(Rp 0.2%) (N/mm2)	UTS (N/mm2)	% Elongation	% Reduction Area	Hardness (BHN) ASTM A 370:2014	Charp	y Impact V (J	Notch (Lo	ngitudnal)	17700
Min.	ASIMA 318.2014	. AS IR NOTOLOTY	no.mmorali 4	,		Temp. Deg		R	esulf	
Max.				 		(C)	1	2	3	Avg
Results	998 690	1102.350	15.100	52.200	326.000	-				

* EL % = 16.10

* RA % = 51.10

"Hardness = 416 BHN

Heat Treatment :

Solution Annealed @ 1900°F. Soaking for thr-20mins & Oil Quanching to below 90°F.

DAS 14

14

Remarks :

- * Country Of Origin Cf Goods India
- * Free from Radioactivity verified through Gamma Ray Spectrometer
- * No Mercury Contamination
- * No welding has been performed on the material
- ' Visual & Dimensional Inspection OK
- * Material Identification tested through X-ray based portable Spectrometer
- * RoHS Compliance
- * H-900 Capability test report
- * YS = 1198.60 N/mm2
- " UTS ~ 1398.00 N/mm2

We confirm that the material is manufactured & supplied in accordance to the Purchase Order

QA Head / NDT Inspector

Ambica Stainless Steel Limited

A-1/1, Wazirpur Industrial Area, New Delhi 110052 India Tel.: +91(120)4564585-88 Emeil: Info@assl.co.in Web: www.ambicastainlees.com CIN: U27106DL2004PLC131284

STAINLESS STEEL ROUND BAR 303 STAINLESS 50" DIA X 144.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-002

Pg 1/2



Acciaierie Valbruna s.p.A.

38100 VICENZA (Italia) - Viale della scienza, 25 z.i. Telefono 0444.968211 - Fax 0444.963836 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37 Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1

Certificato nr. MEST955824 / 2016 / Pring/Test/Essel

VALBRUNA CANADA LTD 8724 HOLGATE CRESCENT L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA Stato di fornitura :

Hot rolled - Annealed Cold Drawn

Produttore:

STABILIMENTO DI BOLZANO

Ordine nr: 608005939 Stock - Canada

Your orce

Conferma ordine nr: El16008423

Avviso di Spedizione: D-BZ16007820 Lieferenze ball'Pectring fist/B.L.

Tipo di Elaborazione: E+AOD Erechmelzungserl Meilling process Meilling deletionste 303HS

Qualità:

MV188ZHS MAXIVAL

Marchi di Fabbrica:

Punzone del Collaudatore:

Punzonatura: 303HS

SPECIFICHE:

Marca:

Aufzeichnungen / Notes / Nose

derungen / Requirements / Exigences VSI 0 303 HS A,CF AISI 303

AMS 5540 V S30300 A AMS 5640 V TYPE1 A ASME SA320 2015 B8F (0) ASTM A314 2015 S30300 ASTM A320 2015A B8F (1)

ASTM A370 2015 ASTM A582 2012 S30300 A MIL-S-862 B/1 303 QQ-S-764 B/2 303 A

(0)SECTION II PT.A 2015 EDITION Chemical analysis only

(1)Chemical analysis only

		Tolleranza: ASTM A484-16 TABLE 7					
Pos. III. Pos. III. Rose IN. Rem IN.	Oggetto Organism Product desolution Organism despendin	Dimensioni - In	Lunghezza - In	Colata Solventre Coules	Pezzi Mintone Pecos Pecos	Peso - LB Genich Waght Poids	Lotto nr.
0010	Round	0,5000	146/ 146	428558)	2.105	612201700

	Test	on delis	ery con	dition Proefun	177	T ALLO STA em produkt			Prueba s	obre al mate	rial ast come entreg	ado	
			1)1=	longicudinalulangs, Tr	trasversafelquer. On	anguazieleitangen	tial						
TEST	Provette/ Protectes Specimen Eprocents Ling darm Spean. Ser or Colon Trichres Mater Claim Trichress Ling dark epois Tron	۰F	Pasiz. Sagglo	Snewamento Novagneza Yalli Shes Unite ebetique Rp 0,2% A.S.	Shervamento Sheoghner Yest States Linite etsolgue	Resistenza Zeptedgasi Tenare serroph Resistance a tenton Rm k.s.l.	Brach	E 4d	Erect Redució	RA	Resilienza Xerbechingerbell Imped Yole Presilience		Durezza Hanne Hanne Hanne Durezz MB
An brede w	ori richiesti ngen/Rousine values ya semanatra		nin ax			-	-		-	-	-		140 255
A	8.75	68	L	88		110		25		49	i	228	

					Chem			himic		6				
ALOND INVEST	min 0,050 max 0,050	0,20 1,00	1,50	17,00 19.00	- 0,60	1,00	3,00 10,00	:	0,100	9.32	9,4000	:	-	-
1) c %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P%	\$%	Zr %			
428558 /	0,036	0,43	1,83	17,75	0,55	0,61	8,12	0,103	0,030	0,32	0,0044			

Produced without class I-II Ozone depleting substances. Solution heat treated free from continuous carbide network. Micro and macro etch test : OK Reduction ratio = 176,7:1 Annealing temperature: 1960° F for 0.5h/water. Material is DFARS Compliant

Bolzano, 15/11/16 BBLD06 - MEST955824

M. Rizzoty Leut

Pagina - 1 di 2

(Mod. MCE2) #PCOM

STAINLESS STEEL ROUND BAR 303 STAINLESS 50" DIA X 144.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-002

Pg 2/2



Acciaierie Valbruna sp.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i. Telefono 0444.968211 - Fax 0444.963836 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37 Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

in conformità a: EN 10204 (2004), 3.1 Necty/According to/Selon

Certificato nr. MEST955824 / 2016 /

Signed by:

Cliente / Besteller/Purchaser/Client VALBRUNA CANADA LTD 8724 HOLGATE CRESCENT L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA State of femiture: Hot rolled - Annealed Cold Drawn

Produttore:

Marchi di Fabbrica:

STABILIMENTO DI BOLZANO

Ordine nr. 608005939 Stock - Canada

Bestell Your order Commands

303HS

Punzone del Collaudatore:

Conferma ordine nr: El16008423 Werks/Our Order/Ref re.

Qualità:

Punzonatura: 303HS

MR

Avviso dl Spedizione: D-BZ16007820

Marca: Markenbezeichnung Brend / Nuonce MV188ZHS MAXIVAL

Kennzeich Marking Marquage

Sono state soddisfatte tutte le condizioni richieste Dis gestellen Anforderungen sind it. Aviage erfolt. The material has been furnished in accordance with the requirements Controllo antimescolanza: OK Verwechskingsrüking: spectrafer Antinsking testing parformed: OX Contrôle antimelenge felt: r,a,s

Tipo di Elaborazione: E+AOD

Controllo visivo e dimensionale: soddisfa le esigenze Beeichtiguitig und Ausmensung: ohne Beenstendung Visuel inspection aud dimensional checks: seteractor; Contrôle visuel at dimensions: sellefaleent

Melted and manufactured in Italy

No welding or weld repair Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001: 2008, ISO/TS16949; 2009, AS 9100C

The Quality Management System is Certified acc. Pressure Equipment Directive 1977/2/ECT Annex 1,s.,4.3 and 2014/68/EU by TUEV and LLOYD'S Any act of tempering, modification, alteration, counterleiting and/or fatsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Accidierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction. Maxival and/or Valplus grades/products are manufactured with ladie techniques to control composition, distribution, size and shape of non-metallic inclusions for improved

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciding Valbruna SpA shall not be responsible for any improper use of the

Bolzano, 15/11/16 BBL006 - MEST955824 (Mod. MCE2) warrange

Il collaudatore di stabilimento / der Werksanchverstängige / Works inspector / L'agent d'usine

M. Rizzotto Rente

Pagina - 2 di 2

STAINLESS STEEL ROUND BAR 303 STAINLESS 1.00" DIA X 144.0000" PART NO

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-004

Pg 1/2



Acciaierie Valbruna S.P.A.

36100 VICENZA (Italia) - Vlate della scienza, 25 ∠i. Telefono 0444,968211 - Fax 0444.963836 Stab.: 39100 BOLZANO (Italia) - Vla A. Volta, 4/37 Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1 NachsAccording to/Selor

PriAmpTeeVEssel

Certificato nr. MEST911146 / 2016 /

Cliente / Besteller/Purchaser/Client VALBRUNA CANADA LTD 8724 HOLGATE CRESCENT L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA Stato di fornitura :

Hot rolled - Annealed Cold Drawn

Produttora:

ACCIAIERIE VALBRUNA S.P.A.

Ordinanc 604005710 Stock - Canada

Conferma ordine nr: El16003312 Welks/Cur Order/Ref n

Qualità:

Tipo di Elaborazione: E+AOD

303HS

Zeichen des Liefertwerkes Trade morks Sigles de l'usins productrice Punzone del Collaudatore: Stampel des Werkssachverstendigen Inspector's stamp/Polniçon de l'assayour

Marchi di Fabbrica:

Avviso di Spedizione: Lieteranzeige/Packing lie/B.L

D-VI16019598

Markenbazaichnung Brand / Nu ance

MV188ZHS MAXIVAL

Punzonatura: 303HS

SPECIFICHE:

Anforderungsa / Requirements / Evigences

VSI 0 303 HS A,CF

AISI 303 AMS 5640 V S30300 A AMS 5640 V TYPE1 A

ASME SA320 2015 B8F (0) ASTM A314 2015 S30300 ASTM A320 2015A B8F (1) ASTM A370 2015

ASTM A582 2012 S30300 A MIL-5-862 B/1 303 QQ-5-764 B/2 303 A

Mechanical properties according to ASTM A370.

Autreichnungen / Notes / Notes

(O)SECTION II PT.A 2015 EDITION Chemical analysis only.

(1)Chemical analysis only.

DAS 14

9-89

	1	Tolleranza: ASTM A484-16 TABLE 7					
Pos. nr.	Oggetto	Tollerenze/Allower oe/Tolerenzes Dimen sloni – In	Lunghezza - In	Colata	Pezzi	Peso - LB	Lotto nr.
Pos. 10. Burn 1s. Nr. de potte	Organists and Product description Omerije, die product	Abressingen Desertage Onversion	Feathern Feath Feathern	Screens - seet Could's	BECKente Places Places	Gundelte Streight Points	LONG FFF, Long, Lot as. Lat as.
0050	Round	1,0000	146/ 148 (428705		4.554	602607440

	Test	on delin			g auf lieferberei		test a fetat		Prueba s	obre el male	riat así come entre	ado	
TEST	Provotta/ Prosestale SpecimentEprocesta Langlater Specia Prode Dates, Dicta Whith Diere, Thicknessa Lang, dates specia	•F	Postz Seggio	Snervamento Snervamento Snertgranta Yario Savio, Unito Jahatipus Rp 0,2%			Altung Section	amento Library poten provid E 4d	Enect	zione muore mid min mid min mid min RA	Resilienza Kaltusiespetub Irrpast Value Resilience		Durazza Fuera Fuera Guera HB
Briknderu	ni nichiesti ngan Taqubad Yobus un tamuncust		in ax	-	-	•	-	-	-	-	•		140 255
А	12,5	68	L	72		101		42		58		251	

TEST ALLO STATO DI FORNITURA Test on delivery condition / Prüefung auf lieferbereitem produkt / Test a l'etat de fourniture / Prueba sobre el material así come entregado TEST A Grain size for ASTM E112

					Chem			himica						
Colsta Atas: 3chmelzs/Coulée	max 0,030 max 0,050	2,20 1,00	1 50 2,00	97,00 99,00	0,50	1 00	8.00 10 00	-	a,700	0,32	0,4000	1:	:	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	Zr %			
428705	0,034	0,48	1,86	17,45	0,50	0,65	8,07	0,095	0,029	0.32	0,0040		1	

Vicenza, 28/07/16	Ill collaudature di stabilimento / der Warkssachverständige / Works inspector / t 'ngant d'unine	200 S S S S S S S S S S S S S S S S S S
VCC005 - MEST911146	M. Rizzotta Schols	Pagina - 1 di 2
(Mod. MCE2) www.w/ashumman-sarunteensa	Militazogay	

STAINLESS STEEL ROUND BAR 303 STAINLESS 1.00" DIA X 144.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-004

Pg 2/2



Acciaierie Valbruna Sp.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i. Telefona 0444.988211 - Fax 0444.963836 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37 Telefono 0471.924111 - Fax 0471.924497

CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

in conformità a: EN 10204 (2004), 3,1

Certificato nr. MEST911146 / 2016 /

Signed by:

Cliente / Besteller/Purchaser/Client VALBRUNA CANADA LTD 8724 HOLGATE CRESCENT State di fomitura : Hot rolled - Annealed Cold Drawn

Produttore:

ACCIAIERIE VALBRUNA S.P.A.

L5T 5Z1 - MILTON, ONT L5T 5Z1 - CA

Tipo di Elaborazione: E+AOD Erschmelbungsart Melting process Made elelehomber

Marchi di Fabbrica:

Ordine nr. 604005710 Stock - Canada

Qualità

Punzone del Collaudatore: Stempel des Werkssachverständigen Inspector's stamp/Poincon de l'assayaus

Conferma ordine nr. El16003312

MV188ZHS MAXIVAL

303HS

Punzonatura: 303HS

Kennzeiennung Marking Varousge

Avviso di Spedizione: D-VI16019598

Marca: Markenbazeichnung Brand / Nusnce

Produced without class I-II Ozone depleting substances. Solution heat treated free from continuous carbide network. Micro and macro etch test: OK Reduction ratio = 44,2:1

Material solution annealed 1070° C for 0.5h/water cooled.

Sono state soddisfatte tutte le condizioni richieste One gestellen Antorderungen sind it. Antoge erfülk The mater si has been farmished in accordance with the requirements

Verwechslungpriffung: spectralonal Antimizing testing performed: O-C Contrôle antimelange fall, r.a.s

Controllo visivo e dimensionale: soddisfa le esigenze Besichtigulig und Ausmessung: ohne Beanstandung visual inspaction and dimensional checks satisfactory Contrible visuel et illemensions: satisfalaans

Material is DFARS Compliant

Le materiel à sie trouvé conforme aux arigances

Melted and manufactured in Italy

No welding or weld repair. Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2008, ISD/T516949 : 2009, AS 9100C

The Quality Management System is Certified acc. Pressure Equipment Directive '97/23/EC' Annex 1,s.,4.3 and 2016/68/EU by TUEV and LLOYD'S Any act of tempering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction. Maxival and/or Valptus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for Improved

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/ or in any case different applications than those the meterial is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Accidence Valbrana SpA shall not be responsible for any improper use of the

Vicenza, 28/07/16 VCQ005 - MEST911146

(Mod. MCE2) уолын ыстогонового эксительна

R collaudatore di stabilimento / der Werkspachverslängige / Works inspector / L'agent d'usine
M.Rizzotta / L'agent d'usine

Pagina - 2 di 2

DART AEROSPACE THYSSENKRUPP MATERIALS NA

ALUMINUM SQUARE BAR 6061-T6511 .750'' X 144.0000"

PO/Rel 35031

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-008

Pg 1/1 23Jan17

Signed by:



Service Center Metals

Prince George, VA 23875 5850 Quality Way

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

ThyssenKrupp Materials NA-Concord,ON ThyssenKrupp Materials NA-Concord ON 1,656 lbs 206pcs CUSTOMER PART NUMBER CUSTOMER PO MANIFEST NUMBER PEC-276004 TKM-1263 299073 MQSQ .750 +.010-.0 ALLOY/TEMPER DIE NUMBER 6061-T6511 MSQ1260 DATE OF SHIPMENT

SHIP TO

Quantity Certified

SALESPERSON D.Schroeder (Canada 6/21/2016

revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6. We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification

	266822	7
	CERTIFICATION	
	ASTM-B221-14 StencilCont	Cont
-	SPECIFICATION	
_	AMS-QQA-200/8 Rev-A	A
	RoHS 2011/65/EU Compliant	npliant

12 201609136 5 201610888	Tests Lot No.
5/23/16 6/21/16	1 est Date
min max 47.10 52.10 51.60 52.00	Ultimate Lensile Strength (KSI)
min max 42.90 49.70 49.40 50.40	Yield Strength (KSI)
min max 14.40 19.40 11.30 15.40	Percent Elongation

Print Date: 6/21/2016			and war	1	3		ı				the USA.	ctured in	SCM extrusions are manufactured in the USA.	SCM extrusi
United States of America United States of America	0.15 0.15	0.05 0.05	97.42 97.40	0.02 0.02	0.08 0.07	0.15 0.09	0.87 0.87	0.10 0.10	0.30 0.31	0.35 0.37	0.71 0.77	6061 6061	201610858 201610858	06101603 06111605
Melt Source:	Total	Each	£	Ħ	<u>Zn</u>	Б	Mg	M	15	Fe	lδ	Alloy	Lot No	Cast#
	Others	0						L	y 6061	ım Allo	Alumin	on for J	Chemical Composition for Aluminum Alloy 6061	Chemica

ALUMINUM PLATE 7075-T651 DOMESTIC 2.00" THICK X 7.0000" X 13.3750" PART NO. ** FROM PLATE ****

> 0 PECKOVERS

4075

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

Pg 1of2

BL PEC-027450-011

Pg 1/2





CERTIFIED TEST REPORT Constellium Rolled Products Ravenswood, LLC

S H 1 P

THYSSENKRUPP CA 2821 LANGSTAFF ROAD CONCORD ON L4K 5C6

110443240

D ٥

THYSSENKRUPP CA 2821 LANGSTAFF ROAD CONCORD ON L4K 5C6 CA

Serial:20160721-0110443240

Signed by:

CUSTOMER PURCHASE ORDER NO. & ITEM Constellium ORDER NO. ALLOY 7075 TEMPER GAUGE CLAD WIDTH 2.03000 in 51.56 mm 60.50000 in T651 1,537 mm ITEM ORDERED SPEC PLATE, SAWED MILL FINISH

CUSTOMER SPECIFICATION AMS QQ-A-250/12A

PART NUMBER **B/L NUMBER** 64636

DATE SHIPPED 07/22/2016

INCLUSION

LENGTH

144.50000 in 3,670 mm

NO. OF PIECES 000003 WT. SHIPPED GOVT. CONTRACT NO. 5550.000 LB

CERTIFICATION

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Revenswood, LLC 859 Century Road P.O. BOX 68

RAVENSWOOD, WV 26164 USA

Steve Good - Laboratory Manager

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

AMS 4045K ASTM B209-14

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001303129	1,850.000	839.145	9346164	03		
1001303130	1,850.000	839.145	9346164	01		
1001303130	1,850.000	839.145	9346164	02		
Lot: 9346164						

Tensile - Room Temperature (US)

		Ultimat	te (KSI)	Yield	(KSI)	Elong	ation (%)
Direction	Tests	Min	Max	Min	Max	Min	Max
LT	02	79.9	80.3	70.2	71.0	12.5	13.5

Tensile - Room Temperature (SI)

		Ultima	te (N/MM2)	Yield	(N/MM2)	Elong	ation (%)
Direction	Tests	Min	Max	Min	Max	Min	Max
LT	02	551	554	484	490	12.5	13.5

P-860-155D REVISED: 10 2014

ALUMINUM PLATE 7075-T651 DOMESTIC 2.00" THICK X 7.0000" X 13.3750" PART NO. ** FROM PLATE ****

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-011

Pg 2of2

Pg 2/2





CERTIFIED TEST REPORT Constellium Rolled Products Ravenswood, LLC

THYSSENKRUPP CA S H 2821 LANGSTAFF ROAD CONCORD ON 1 P L4K 5C6 T 0

5 0 L D T 0

THYSSENKRUPP CA 2821 LANGSTAFF ROAD CONCORD ON L4K 5C6

PECKOVERS 110443240 4075 INCLUSION Serial:20160721-0110443240 CUSTOMER PURCHASE ORDER NO. & ITEM PEC-276877 Constellium ORDER NO. CERTIFICATION 182320 *Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the ALLOY CLAD TEMPER GAUGE T651 2.03000 in LENGTH WIDTH requirements of the applicable specifications as 7075 60.50000 in 144.50000 in indicated herein. Any warranty is limited to that 51.56 mm 1.537 mm 3,670 mm shown on Constellium Rolled Products' standard ITEM ORDERED General Terms and Conditions of Sales. Test SPEC PLATE, SAWED raports are on file, subject to examination." MILL FINISH Constellium Rolled Products Ravenswood, LLC 859 Century Road **GUSTOMER SPECIFICATION** P.O. BOX 68 AMS QQ-A-250/12A RAVENSWOOD, WV 26164 USA PART NUMBER B/L NUMBER DATE SHIPPED 64636 07/22/2018 WT. SHIPPED NO. OF PIECES GOVT, CONTRACT NO. 5550.000 LB 000003 Steve Good - Laboratory Manager

Chemistry (Actual)

Core

FE CU MN 0.15 1.41 0.05

MG CR 2.56 0.20

ZN 5.46 TI ZR 0.03 0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"

P-860-155D REVISED: 10 2014

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .125" x .750" X 240.0000" PART NO. PO/Rel 35031

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs. **Certificate of Mill Test Results**

Pg 1/1

BL PEC-027450-009

Attn:

CAN ART

Material Test Report

Manifest: 316387

Ship To: ThyssenKrupp Materials NA

2821 Langstaff Road Concord, ON L4K 5C6 Ticket: 5506879

Our Order: (429847 - 4)

Die: ES05485

Cust P.O.: 278787

Part: 05485-000-240

Alloy Temper: 6061T6511

Description: (.125 x .750

x .750

DAS 14 9-89 17/01/2

Print Date: 10/27/16

				Ch	emical	Compos	ition Ra	nge			
6061	<u>Si</u>	<u>Fe</u>	<u>Cu</u>	Mn	Mg	Cr	<u>Zn</u>	<u>Ti</u>	OtherEach	Other Total	
Min	0.40		0.15		0.8	0.04					
Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15	

				cal Proper ength ksi	ties		
Sample 1D	Cast #	Lot#	Test Date	Ultimate Tensile	Yield 2% offset	Elongation 2" gage length	
424907	3B4184	A11	10/27/16	46.69	42.47	13.6	

Applicable Specifications: ASTMB221-14

AMS-QQ-A200/8A

Country of Origin: 85 Parkshore Drive, Brampton, Ontario CANADA L6T 5M1

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.

Siddharth Desai - Tensile Testing

Authorized:

Evan Eng, Quality Assurance Manager

DART AEROSPACE
ALUMINUM FLAT BAR 6061-T6511
.375" x 1.00" X 144.0000"
PART NO.

PO/Rel 35031
We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PEC-027450-005

Pg 1/1



Service Center Metals

5850 Quality Way

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

Can Do.	Prince George, VA 23875	875	<i>₽≊\</i> III		OUR ORDER NUMBER TEM	15
BNLL 70		MANTEST NUMBER	DIE NUMBER DATE OF SHIPMENT		CERTIFICATION	
ThyssenKrupp Materials NA-Concord,ON	Is NA-Concord, ON	315913	RB0081	12/6/2016	ASTM-B221-14 StencilCont	nt
SHIP TO		CUSTOMER PO	ALLOY / TEMPER SALESPERSON		SPECIFICATION	
ThyssenKrupp Materials NA-Concord,ON	Is NA-Concord ON	PEC-279601	6061-T6511 D.Sch	D.Schroeder (Canada)	AMS-00A-200/8 Rev-A	
Quantity Certified	1.080 lbs 204 pcs	CUSTOMER PART NUMBER	DESCRIPTION	>		
					/	5 (
We hereby certify that the	e material covered by this	report has been inspected	We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification	t certification		00
revision, and has been fou	and to meet the applicable	requirements described to	revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the	orning a part of the		9-80
description, and that samples representative of the material met the composition limit Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.	iles representative of the ed as 6061-T6511 also m	material met the compositi eet the requirements of 60	description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.	operties shown.		20/20/20
This product is RoHS-2, REACH, and DFARS compliant	EACH, and DFARS comp	liant.				
Mechanical Properties	rties		Test Date	Ultimate Tensile	Yield	Percent
Tanta I at No.				liev) unbuane	levil	CIONAGO

Tests

Lot No.

201621177

12/3/16

43.40

44.20 max

min 37.80

max 38.50

min 17.40

max 18.30

3

Print Date: 12/6/2016				3/1	<u>2</u>					USA	ed in the	nd extrud	s are melted a	SCM products are melted and extruded in the USA
United States of America	0.15	0.05	97.87	0.02	0.01 0.02	0.07	0.86	0.06	0.22	0.24	0.64	6061	201621177	2K161104C 201621177
Melt Source:	Others <u>ach Total</u>	Oth <u>Each</u>	AL	1=1	<u>Zn</u>	Ŋ	Mg	M	<u>C</u>	Fe	lΩ	Alloy	Lot No.	Cast#
								L	y 6061	m Allo	luminu	on for A	Compositi	Chemical Composition for Aluminum Alloy 6061

Director of Quality & Technical Services

DART AEROSPACE THYSSENKRUPP MATERIALS NA

STAINLESS STEEL ROUND BAR 303 STAINLESS .750" DIA X 144.0000"

PO/Rel 35031

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-003

Pg 1/1 23Jan 17

Signed by:

NAS

North American Stainless Canada Inc. Guelph, ON NIKIZ3 740 Imperial Road North

METALLURGICAL TEST REPORT

6870 Highway 42 East Ghent, KY 41045-9615 (502) 347-6000

Certificate: 216009 w Mail To:

Customer: 007206 001 THYGGENKRUPP MATERIALS
2821 LANGSTAFF ROAD
CONCORD, ON L4K5C6

THYSSENKRUPP MATERIALS CONCORD, ON LARSCO 2821 LANGSTAFF ROAD Ship To:

Finish: CD Steel 303 Date: 9/07/2016

Page: 1

MAS Order: IN 0236677

Corregion:

SOLUTION ANNEAL TEMP 1900F MIN AMS 5640V TYPE 1, QQS-754B CONDITION A UNS 30300,

Round Bar, Annealed, Cold Draw

ASTM A582/12 EN 10204 3.1, ASTM A484/15

PRODUCT Your Order:

DESCRIPTION:

PEC277672

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252,225-7009 EU DIRECTIVE IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION 2011/65/EU.ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG

BI1735 6 Product Id skid # Diameter .7500 Size Weight 780 -----Length----144.00 Mark Pieces Commodity Code

CHEMIC

AL

ANALYSI

to

CM(Country of Melt)

ES(Spain) US(United States) ZA(South Africa) JP(Japan) Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323 Chemical Analysis per ASTM A751/14a

_			100D	TEAT .	
			US	CM	
	.3108	88	.0328	CM C %	
	.5520	% IB	.1455	% 00	
			.1455 17.1285	CR CR	
			.3270	% DD	
			1.8445	CD % MN % MO %	
			.3050	% OM	
			.0345	N %	
			8.6060	% IN	
			8.6060 .0275	₩ ₩	

Z H CH ANICAL d я O ש H RTIE

	_
BI1735 6	Product Id
R	0 0 H
R L 230.0	HB No.
81.18	.2YS KSI
81.18 104.43	UTS TU
- 1	RA *
39.68 26.52	Elng % 4D

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS

Dept. Mgr. Technical

DART AEROSPACE

ALUMINUM FLT BAR ECONOPLT 6061-T6511 .500" X 12.00" X 144.0000" PART NO.

PO/Rel 35031

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-027450-007

23Jan17 Pg 1/1

KAISER
ALUMINUM
FABRICATED PRODUCTS

Berlin

CERTIFIED TEST REPORT

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PO NUMBER	:	CUSTOMER PART	NUMBER:	PRODUCT DESCRIPTION:					
PEC-278342-2	PEC-278342-2 W61/STK			.500 X 12.000 PRECISION WIDE BAR					
KAISER ORDER NUMBER	LINE ITEM:	SHIP	DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:			
6017989	002	10/0	4/2016	200108144	6061	T6511			
WEIGHT SHIPPED:	QUANTITY:	B/L N	UMBER.	DIAM/DAE/THKNS:	WIDTH:	LENGTH:			
1016.000 LB	12.000 PC	CS 617	037			12.000 FT			
SHIP TO:			,	SOLD TO:					
THYSSENKRUPP 2821 LANGSTAFF CONCORD, ON L4	ROAD	NADA		THYSSENKRUPP 2821 LANGSTAFF CONCORD, ON LA	ROAD				

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	DNESS	CONDUCT.	BEND
200108144	0001	0001	44.3	39.9	12.4	RE	94	N/A	N/A
700108144	00001	0002	43.9	39.5	12.5	RE	92	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	.NA	NA -	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	C.80	0.04	0.00	0.00	NV	NA	NA	0.00	0.00
106598	.59	.26	.20	.07	.82	.06	.04	.02	-00	.00	.00	.01	.03

Applicable Requirements:

ASTM-B221-14 STENCILED ASME-SB221 2009 SECT II AMS-QQ-A-200/8A UNS#A96061 (T6511 also conforms to T6-not applicable to other tempers)

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Aimee L. Macnowski, Quality & Technology Manager

Aime & Macrows

Plant Serial: 00253478

Kaiser Order Number: 6017989

Line Item: 002

Page 1 of 1

DART AEROSPACE THYSSENKRUPP MATERIALS NA

ALUMINUM FLAT BAR 6061-T6511 1.250" x 2.00" X 144.0000" ARTNO

PO/Rel 35031

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results 23Jan17

BL PEC-027450-010

Pg 1/1

Can Do

Service Center Metals

Prince George, VA 23875 5850 Quality Way

BILL TO

ThyssenKrupp Materials NA-Concord,ON

Quantity Certified

4,135 lbs

116pcs

CUSTOMER PART NUMBER

PEC-279340

CUSTOMER PO

ALLOY / TEMPER

MANIFEST NUMBER

DIE NUMBER

314603

ThyssenKrupp Materials NA-Concord, ON

FOR EXTRUDED PRODUCTS

CERTIFIED INSPECTION REPORT AND TEST RESULTS

OUR ORDER NUMBER 278856 MET 3

MRB1792 DATE OF SHIPMENT

DERTIFICATION

SALESPERSON 11/21/2016

ASTM-B221-14 StencilCont

SPECIFICATION AMS-QQA-200/8 Rev-A

68-6

6061-T6511 D.Schroeder (Canada

HESCRIPTION

description, and that samples representative of the material met the composition limits and had the mechanical properties shown. revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification MR81792 MQRB 1.250x2.000

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6 This product is RoHS-2, REACH, and DFARS compliant

Lot No.

201617706

Mechanical Properties

10/13/16

Test Date

Ultimate Tensile Strength (KSI)

Yield Strength

Percent

17/02

DAS 48

51.40

51.90 max

min 47.90

(KSI)

max 48.60 min min 15.15 Elongation

max 17.25

Chemical Composition for Aluminum Alloy 6061

201617706 201617706 6061 6061 0.74 0.74 0.37 0.37 0.32 0.33

1K160930C

Cast #

Lot No.

Alloy

100

Fe

5

M

Mg

1K161006D 1K160930Y

201617706

0.31

0.10

0.88 0.90

> 0.09 0.10

> 0.03 0.03

97.44

0.03 0.03

0.10

0.88

2

Zn

2

Each

Others Total

Melt Source:

97.41

0.05 0.05

0.15

United States of America

0.15 United States of America United States of America

Print Date: 11/21/2016

SCM products are melted and extruded in the USA

state of Quality & Tachnical Sentice

MATERIAL: 17-4 DATE: 17-4	R.79	56	PC) / BATCH NO	3503/1	1366
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	14.0	2b 20	THICKNE: SHEET SI	SS ORDERED SS RECEIVED ZE ORDERED ZE RECEIVED	- 757	5
DESCRIPTION	NCR (Check Y/N)		С	OMMENTS		
SURFACE DAMAGE CORRECT FINISH CORROSION CORRECT GRAIN DIRECTION CORRECT MATERIAL CORRECT THICKNESS PHOTO REQUIRED CORRECT MATERIAL CORRECT MATERIAL CORRECT MATERIAL CORRECT MATERIAL CORRECT MATERIAL IDENTFICATION CORRECT M# ON THE MATERIAL DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF DOES THIS REQUIRE AN EXTRUSION REPORT		17-9 .750 AMS HEA 17-19 M1366	57,43 74,800 R. 150	Q44		
CUT SAMPLE PIECE TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER REA	RECO	TERIAL AND FORD RESULT HRC HRC	S BELOW HRB	HARDNESS C	DUR D	
QC 18 INSPECTION			EN SIGNED	NGINEERING	SIGNOFF (if	required)

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

DATE:

MATERIAL: 91303 DATE: 171	RO.5	200		Р	O / BATCH NO.	35031/1	3669
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	24			THICKNE SHEET S	ESS ORDERED ESS RECEIVED SIZE ORDERED IZE RECEIVED	_,500	
DESCRIPTION	NCR (Check Y/N)			(COMMENTS		
SURFACE DAMAGE	YO						
CORRECT FINISH	(Y) N						
CORROSION	YO						
CORRECT GRAIN DIRECTION	(A) N	0.10					
CORRECT MATERIAL	Ø N	303	<u>></u>				
CORRECT THICKNESS	N	1,500					
PHOTO REQUIRED	YO	100	TM A	e Po			
CORRECT MATERIAL	(A) N	1121	174	113×	558	3	
CORRECT REF # TO LINK CERT	(A) N	470	3 45	1 5AA	330		
CORRECT MATERIAL IDENTFICATION	(A) N	1/12/	Ta	2			
CORRECT M# ON THE MATERIAL	(Ý) N	11154	071				
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	YA						
DOES THIS REQUIRE AN EXTRUSION REPORT	YA						
		TEDIAL AN	10 DDE	EODM A	HARDNESS (CHECK.	
CUT SAMPLE PIECE	- OF MA	ORD RESL	II TO BE				
	REC	T HRC	1 0 00	HRB	T DUR A	DUR D	
THE OF MATERIAL		nnc					
TYPE OF MATERIAL							
SIZE OF TEST SAMPLE	DING						
HARDNESS / DUROMETER REA	tester	s located in th	ne Qualit	y Office		Total Holes Holes	
	testers						

INSPECTED BY: ________ SIGNED OFF BY: ________ DATE:

ENGINEERING SIGNOFF (if required)

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION

MATERIAL: M303 DATE: 17	3, F	125	750	PO	O / BATCH NO.:	3503//13	36697
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	10	7,		THICKNE SHEET S	SS RECEIVED: IZE ORDERED:	,750 ,750	
	NC	CR		9			
DESCRIPTION	(Ch	eck (N)		C	COMMENTS		
SURFACE DAMAGE	Y	A					
CORRECT FINISH	(8)	N					
CORROSION	Y	B					
CORRECT GRAIN DIRECTION	0	N	0.5				
CORRECT MATERIAL	(2)	N	303				
CORRECT THICKNESS	(X)	N	, 750				
PHOTO REQUIRED	X	0	16 🛨	1 10-00			
CORRECT MATERIAL	80	N	42/2	# 100	7		
CORRECT REF # TO LINK CERT	(X)	N	450	Bn 30			
CORRECT MATERIAL IDENTFICATION	(X)	N	7503	KO: /SC)		
CORRECT M# ON THE MATERIAL	(8)	N	71300	17			
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	8					
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	N					
				DEFORMA	LIABONESS	HECK	
CUT SAMPLE PIECE	E OF	MAT	TERIAL AND P	KELOKINI A	HARDINESS O		
	F	RECO	ORD RESULTS	HRB	T DUR A	DUR D	
			HRC	HKD	DONA		
TYPE OF MATERIAL							
SIZE OF TEST SAMPLE		_					
HARDNESS / DUROMETER REA	MIDIN	G	located in the Q	uality Office			
	<u>te</u>	esters	rocated in the Qi	Janey Office			

QC 18 INSPECTION

INSPECTED BY:

DATE:

DATE:

ENGINEERING SIGNOFF (if required)

SIGNED OFF BY:

DATE:

DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL: <u>4303</u> DATE:	RIL	DODPO/BATCH NO.: 35031/136697
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	12	THICKNESS ORDERED: // 06 THICKNESS RECEIVED: // 07 SHEET SIZE ORDERED: SHEET SIZE RECEIVED:
DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE CORRECT FINISH CORROSION CORRECT GRAIN DIRECTION CORRECT MATERIAL CORRECT THICKNESS PHOTO REQUIRED CORRECT MATERIAL CORRECT MATERIAL CORRECT METERIAL CORRECT MATERIAL IDENTFICATION CORRECT MATERIAL IDENTFICATION CORRECT MATERIAL REQUIRE ENGINEERING SIGN OFF DOES THIS REQUIRE AN	X X X X X X X X X X X X X X X X X X X	303 1.00 ASTM AS\$2 HEATH 428705 M303 R1.000 M136697
CUT SAMPLE PIECE TYPE OF MATERIAL SIZE OF TEST SAMPLE	REC	TERIAL AND PREFORM A HARDNESS CHECK. ORD RESULTS BELOW HRC HRB DUR A DUR D
HARDNESS / DUROMETER REA	testers	ENGINEERING SIGNOFF (if required) SIGNED OFF BY:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

DATE:

INSPECTED BY:

DATE:

material: <u>MGO</u> date:	6(TGB,7 HO1/27	SOX.16	25 PC) / BATCH NO.:	3563/	/13lelo9:
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	100'		THICKNES SHEET SI	SS RECEIVED: ZE ORDERED:	125	
DESCRIPTION SURFACE DAMAGE CORRECT FINISH CORROSION CORRECT GRAIN DIRECTION CORRECT MATERIAL CORRECT THICKNESS PHOTO REQUIRED CORRECT MATERIAL CORRECT MATERIAL CORRECT MATERIAL CORRECT MATERIAL CORRECT MATERIAL IDENTFICATION CORRECT M# ON THE MATERIAL DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF DOES THIS REQUIRE AN EXTRUSION REPORT	NCR (Check Y/N) Y N Y N Y N Y N Y N Y N Y N Y N Y N Y N	4517 4517 4517 4517 4010	B221 - # 429 - # 429 - # 429	OMMENTS AMS 847-4 OX,125	QQ-4-20	20/8
CUT SAMPLE PIEC TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER RE	RECORD	HRC	HRB uality Office	DUR A	DUR D	required)
DATE:	101/27		SIGNED	OFF BY:		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

1417 (1 = -							1
MATERIAL: 17707	251	61	37.00x2.00	PC	/ BATCH NO.:	3 <i>5</i> 03//	1366
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	6) . (THIC SHE	KNES	SS ORDERED: SS RECEIVED: ZE ORDERED: ZE RECEIVED:	2.08	<i>D</i>
DESCRIPTION	NCI (Che Y/N	ck		С	OMMENTS		
SURFACE DAMAGE	YR	70					
CORRECT FINISH	1	N					
CORROSION	X 1	(M)					
CORRECT GRAIN DIRECTION	Va 1	Z					
CORRECT MATERIAL	(X)	Ν	707576				
CORRECT THICKNESS	(8)	N	2.080				
PHOTO REQUIRED	1	N	Auc on	1	550112		
CORRECT MATERIAL	0	N	H12-00	30	1774	*	
CORRECT REF # TO LINK CERT	8	N	755750 17	OR	FOOX ?	2-00	
CORRECT MATERIAL IDENTFICATION	(A)	N	1412/1607	1	1100		
CORRECT M# ON THE MATERIAL	0	IV	1113991				
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	0					
CUT SAMPLE PIEC	E OF I	MA ⁻	TERIAL AND PREFOR ORD RESULTS BELOV	V V	HARDNESS C	DUR D	
THE OF MATERIAL			111.0				
TYPE OF MATERIAL							-
SIZE OF TEST SAWIFEL	DING)					
HARDNESS / DUROMETER NE	tes	ters	located in the Quality Offi	ice			
SIZE OF TEST SAMPLE HARDNESS / DUROMETER REA QC 18 INSPECTION	tes	sters	located in the Quality Offi		NGINEERING	SIGNOFF (if	require

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SIGNED OFF BY:

DATE:

INSPECTED BY: ____

DATE:

9-89

MATERIAL: NOO	eITLeBa	0.375×1.0	000 F	PO / BATCH NO	:Po 3503	31/13/06
DATE: 17					<u>. 40</u>	1
MATERIAL CERT REC'D:	es		THICKN	ESS ORDERED): +00	375
QUANTITY RECEIVED:	12		THICKN	ESS RECEIVED): , 37	4
QUANTITY INSPECTED:	12'		SHEET	SIZE ORDERED	A / CA	
QUANTITY REJECTED:			SIZE RECEIVED			
						3
DESCRIPTION	NCR (Chec. Y/N)	. 1	1	COMMENTS		
SURFACE DAMAGE	YI	0				
CORRECT FINISH	WI	I				
CORROSION	YO	D				
CORRECT GRAIN DIRECTION	(Y) N					
CORRECT MATERIAL	(Y) N		2			
CORRECT THICKNESS	YN	, , , ,				
PHOTO REQUIRED	XC					
CORRECT MATERIAL	YN	1112-1-5	2A-200/	B		
CORRECT REF # TO LINK CERT	(Y) N		20162117			
ORRECT MATERIAL IDENTFICATION	X	110000	[LeBO-375	5X1.000		
CORRECT M# ON THE MATERIAL	Y	M 1366	9+			
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	YIN	3				1
DOES THIS REQUIRE AN	FIN	4				
EXTRUSION REPORT	YN					
			4,000			
CUT SAMPLE PIECE	OF MA	ATERIAL AND	PREFORM A	HARDNESS (CHECK.	1
	REC	ORD RESUL				
TVDE OF MATERIAL		HRC	HRB	DUR A	DUR D	
TYPE OF MATERIAL						
SIZE OF TEST SAMPLE	DINO					
HARDNESS / DUROMETER REA			<u> </u>	<u> </u>		
	tester	s located in the	Quality Office			
C 18 INSPECTION				Name	SIGNOFF (if r	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SIGNED OFF BY: ___

DATE:

INSPECTED BY:

DATE:

MATERIAL: DATE:	MGCGGTTGB2.000X1.250	PO / BATCH NO.:	PO35031/13669
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	12' 12'	THICKNESS ORDERED: _ THICKNESS RECEIVED: _ SHEET SIZE ORDERED: _ SHEET SIZE RECEIVED: _	

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	YN	
CORRECT FINISH	YN	
CORROSION	YN	
CORRECT GRAIN DIRECTION	YN	
CORRECT MATERIAL	Y) N	call To
CORRECT THICKNESS	Y) N	
PHOTO REQUIRED	YN	
CORRECT MATERIAL	Y) N	ASTM B221 /AMS-BOX-200/8
CORRECT REF # TO LINK CERT	(Y) N	Heat # 2016/1770(2
CORRECT MATERIAL IDENTFICATION	Y N	M6061T6B2000X1.250
CORRECT M# ON THE MATERIAL	Y N	M 136697
DOES THIS MATERIAL REQUIRE		
ENGINEERING SIGN OFF	YN	
DOES THIS REQUIRE AN		
EXTRUSION REPORT	Y N)

CUT SAMPLE PIECE OF MA	TERIAL AND I		HARDNESS C	CHECK.	
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	
SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING					

testers located in the Quality Office

OC 40 INCRECTION	UAS	
QC 18 INSPECTION	DAS 48	ENGINEERING SIGNOFF (if required)
INSPECTED BY:	48 9-89 9-89	SIGNED OFF BY:
DATE:	17/02/02	DATE:
	1	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL: 16061 DATE: 17-	T6.	B0 2-0	500 × 12,000 F	PO / BATCH NO): 7 0 3503 (1/14/36687		
MATERIAL CERT REC'D:			THIC	KNESS ORDERE); D:			
QUANTITY RECEIVED:								
QUANTITY INSPECTED:								
QUANTITY REJECTED:			SHEE	T SIZE RECEIVEL	D;			
DESCRIPTION	(Cr	CR neck		COMMENTS				
		/N)						
SURFACE DAMAGE		0						
CORRECT FINISH	8							
CORROSION	Υ	0						
CORRECT GRAIN DIRECTION	8	N						
CORRECT MATERIAL	8	N						
CORRECT THICKNESS	(8)	N						
PHOTO REQUIRED	Υ	00						
CORRECT MATERIAL	8	N						
CORRECT REF # TO LINK CERT	8	N						
CORRECT MATERIAL IDENTFICATION	0	N	20010819	9				
CORRECT M# ON THE MATERIAL	W	N						
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	N						
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	N						
CUT SAMPLE PIECE			TERIAL AND PREFORM ORD RESULTS BELOW		CHECK.			
TYPE OF MATERIAL SIZE OF TEST SAMPLE			HRC HRB	DUR A	DUR D			
HARDNESS / DUROMETER REA	DINIC	ء ا						
			located in the Quality Office					
	10	31013	посатей ин тие Quanty Описе					

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

ENGINEERING SIGNOFF (if required)

DATE:

SIGNED OFF BY:

QC 18 INSPECTION

INSPECTED BY:

DATE: FFR 0 3 2017

MATERIAL:HGOGIT	(eB)	015	03	PO	O / BATCH NO	PO 35031	M136697
MATERIAL CERT REC'D:			Т	HICKNE	SS ORDERED):	
QUANTITY RECEIVED:		100);	
QUANTITY INSPECTED:				JEET OI	IZE OPDEDED		
				ILLI SI	ZE DESENTED		
QUANTITY REJECTED:			SF	EET SI	ZE RECEIVED		
9			8				
		CR					
DESCRIPTION		eck		COMMENTS			
CUREAGE DAMAGE		(N)					
SURFACE DAMAGE CORRECT FINISH	Y						
CORROSION	Y	N					
CORRECT GRAIN DIRECTION	(Y)	N					
CORRECT MATERIAL	(Y)	N					
CORRECT THICKNESS	XO.	N					
PHOTO REQUIRED	Ý	W					
CORRECT MATERIAL	8	N					
CORRECT REF # TO LINK CERT	(8)	Ν					
CORRECT MATERIAL IDENTFICATION	Ø	Ν	20162	1892	2		
CORRECT M# ON THE MATERIAL	Ø	Ν					
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	N					
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	Ν					
CUT SAMPLE PIECE					ARDNESS (CHECK.	
		RECO	ORD RESULTS BELC				,
TYPE OF MATERIAL SIZE OF TEST SAMPLE			HRC HR	В	DUR A	DUR D	
HARDNESS / DUROMETER REA	DING			\rightarrow			
DNESO / BONOWIETEN REA			located in the Quality Of	fice			

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	36 9-89	SIGNED OFF BY:
DATE:	FEB 0 3 2017	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL: 17 6061 DATE: 17-	7504,750	Э р	PO / BATCH NO	P035031	14136697			
MATERIAL CERT REC'D:				THICKN	ESS ORDERED).		
QUANTITY RECEIVED:			э.	THICKNE	SS RECEIVED	·		
QUANTITY INSPECTED:								
QUANTITY REJECTED:				CHEET	NZE DECENTED	·		
				ONLLY	IZE RECEIVED	·		
		CR						
DESCRIPTION	Y/	ieck (N)		C	COMMENTS			
SURFACE DAMAGE		0	>					
CORRECT FINISH	8	N						
CORROSION	Y	(1)						
CORRECT GRAIN DIRECTION CORRECT MATERIAL	8	N						
CORRECT THICKNESS	8	N						
PHOTO REQUIRED	Y	M						
CORRECT MATERIAL	(Y)	N						
CORRECT REF # TO LINK CERT	N	N						
CORRECT MATERIAL IDENTFICATION	Ø	N	20	161085	8			
CORRECT M# ON THE MATERIAL	W	Ν						
DOES THIS MATERIAL REQUIRE								
ENGINEERING SIGN OFF	Υ	Ν						
DOES THIS REQUIRE AN	.							
EXTRUSION REPORT	Y	N						
CUT SAMPLE PIECE					HARDNESS C	HECK.		
	R	ECC	ORD RESULTS					
TYPE OF MATERIAL		- 1	HRC	HRB	DUR A	DUR D		
SIZE OF TEST SAMPLE		- 1) is	
HARDNESS / DUROMETER REAL	DING	<u>.</u>						
			located in the Qu	uality Office				
			*					
OC 19 INCRECTION	Silette	970V/LLU						
QC 18 INSPECTION				E1	NGINEERING	SIGNOFF (if r	equired)	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SIGNED OFF BY:

DATE:

FFR N 3 2017

DATE:



Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35031

Purchase Order Date 1/19/2017 PO Print Date 1/19/2017

Page Number 1 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8 CA

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA



JAN 1 9 2017

Contact Name

Vendor Phone

Ship To Contact

Ship To Phone

905 669 9444

VENDOR'S TRUCK

Buyer

Chantal Lavoie

Customer POID
Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship Via: Ship Acct:

Line Reference Description/ Req Date/ CD Req Qty/ Nbr Mfg ID Taxable Unit of Vendor Part Number Measure **Line Comments Promise Date Delivery Comments** M174R0.750 17-4 round bar .750 1/25/2017 14.20 Yes 1/25/2017

17-4PH/S17400/TYPE 630 SS ROUND BAR PER AMS 5643/ASTM A564
GRAIN MUST BE ALONG LENGTH OF BAR. MINIMUM YIELD TENSILE STRENGTH = 100KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI

2 M303R0.500

303 Round Bar 0.500"

1/25/2017

Yes 1/25/2017

24.00

\$8.93

PO Unit Price

\$2.66 \$63.82

MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

Line Total:

Line Total:

\$63.82

Extended

\$126.82

\$126.82

Price

JAN 27 2017

136697

PO Instructions: NO PEC ST-8344



Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35031

Purchase Order Date 1/19/2017 PO Print Date 1/19/2017

Page Number 2 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8 CA

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name

Vendor Phone

Ship To Contact

Ship To Phone

905 669 9444

VENDOR'S TRUCK

Buyer **Customer POID**

Customer Tax#

Terms Currency Net 30 CAD

Chantal Lavoie

10127-2607

FOB

FCA-

(Free Carrier)

M303R0.750

Ship Via:

Ship Acet:

303 Round Bar 0.750

1/25/2017

Yes 1/25/2017

12.00

\$5.98

\$71.79

MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

M303R1.000

303 Round Bar 1.00

1/25/2017

Yes

1/25/2017

MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

Line Total:

\$71.79

\$9.08

\$108.99

Line Total:

\$108.99

M6061T6B0.375X01.000

6061T6 BAR .375 x 1.00

1/25/2017

Yes 1/25/2017

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR

ASTM B221

12.00

12.00

\$4.58

\$55.00

PO Instructions: NO PEC ST-8344



Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35031

Purchase Order Date 1/19/2017 PO Print Date 1/19/2017

Page Number 3 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8 CA

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name

Vendor Phone

905 669 9444

Buyer

Chantal Lavoie

VENDOR'S TRUCK

Customer POID

Ship To Contact

Ship To Phone

Customer Tax#

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship Acct:

Ship Via:

M6061T6B0.500X06.000

6061-T6 Bar .500 x 6.00

1/25/2017

Line Total:

\$55.00

Yes

1/25/2017

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221

\$10.74

\$128.88

M6061T6B0.500X12.000

6061-T6 Bar .500 x 12.00

1/25/2017

Yes

1/25/2017

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221

Line Total:

\$128.88

\$254.75

\$21.23

12.00

Line Total:

\$254.75

PO Instructions: NO PEC ST-8344



Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35031

Purchase Order Date 1/19/2017 PO Print Date 1/19/2017

Page Number 4 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8 CA

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name Vendor Phone **Ship To Contact**

Ship To Phone

905 669 9444

VENDOR'S TRUCK

Customer POID Customer Tax#

Chantal Lavoie

Terms Currency

Buyer

10127-2607 Net 30 CAD

FOB

FCA – (Free Carrier)

Ship Acct:

M6061T6B0.750X00.750

Ship Via:

6061-T6 Bar .750 x .750

1/25/2017

12.00 f \$4.58

\$55.00

Yes

1/25/2017

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221

M6061T6B00750X00.125

6061-T6 Bar .750 x .125

1/25/2017

Yes

100.00

Line Total:

\$55.00

\$0.55

\$55.00

1/25/2017 MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR

ASTM B221

M6061T6B2.000X01.250

6061-T6 Bar 2.00 x 1.25

1/25/2017

Yes

1/25/2017

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR

ASTM B221

PO Instructions: NO PEC ST-8344

Note:

Line Total:

\$55.00

\$8.99

\$107.90



Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35031

Purchase Order Date 1/19/2017 PO Print Date 1/19/2017

Page Number 5 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8 CA

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name

Vendor Phone

905 669 9444

Buyer

Chantal Lavoie

Customer POID Customer Tax #

10127-2607

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

Terms Currency Net 30 CAD

FOB

FCA - (Free Carrier)

M7075T6B7.000X2.000

7075-T6 BAR 7.000" X 2.000" (order in billets -

1/30/2017

13.375")

6.69

f

\$105.83

\$0.00

\$708.00

\$107.90

Yes

1/30/2017

MATERIAL: 7075-T6 OR T651/T6510/T6511/T62 ALUMINUM BAR AS PER AMS-QQ-A-225/9 OR AMS 4122/4123/4186/4187 OR PÉR AMS-QQ-A-200/11 OR QQ-A-250/12 CUT FROM PLATE

NOTE: CUT 6 PCS AT 13.375", GRAIN DIRECTION ALONG 13.375"

Line Total:

Line Total:

\$708.00

\$0.00

71401-45

PROCUREMENT QUALITY CLAUSES 1/25/2017

No

1/25/2017

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retension of quality documents

PO Instructions: NO PEC ST-8344



Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35031

Purchase Order Date 1/19/2017 PO Print Date 1/19/2017

Page Number 6 of 6

Order From:

VC-COP001

THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A" TORONTO, ON M5W 5V8 CA

Ship To: DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name

Vendor Phone

Ship To Contact

Ship To Phone Ship Via:

Ship Acct:

905 669 9444

VENDOR'S TRUCK

Buyer

Chantal Lavoie

Customer POID Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Total:

\$0.00

PO Total:

\$1,735.95

PO Instructions: NO PEC ST-8344

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100

requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr:

1

Change Date:

1/19/2017